



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*[Handwritten signature]*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,588	09/30/2003	Ruven E. Brooks	110003.00048.03SW195	5394

7590 12/22/2004  
Susan M. Donahue  
Rockwell Automation, Inc.  
704-P  
1201 South Second Street  
Milwaukee, WI 53204

EXAMINER
----------

LE, JOHN H

ART UNIT	PAPER NUMBER
----------	--------------

2863

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,588

Applicant(s)

BROOKS ET AL.

Examiner

John H Le

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 and 70-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,16,17 and 70-73 is/are rejected.
- 7) ☒ Claim(s) 3-15,18-34 and 74 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. This office action is in response to applicant's response received on 11/01/2004.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Roder et al. (USP 6,361,469).

Regarding claim 1, Roder et al. disclose a method for identifying at least a section of a first schematic (e.g. mechanical schematic, Fig.2) associated with at least a section of a second schematic (e.g. electrical schematic, Fig.1) wherein each of the first and second schematics includes a set of components (mechanical component 41 and electrical component 45) for configuring a system (Col.4, lines 10-15) to perform a process (e.g. Col.11, lines 1-3) and wherein the components of the first and second schematics are first and second different types (electrical component different type with mechanical component), respectively, the method comprising the steps of: a) identifying the components of the first type (mechanical component) included in the first section of the first schematic (mechanical schematic) (e.g. Col.8, lines 18-44); b) examining the

Art Unit: 2863

second schematic (electrical schematic) to identify at least one instance of components of the second type (electrical component 45) that are associated with the identified components of the first type (mechanical component 41) (e.g. Col.9, lines 5-Col.10, line 13); and c) when at least one instance of components of the second type (electrical component 45) is identified, rendering the at least one instance accessible (e.g. Col.10, lines 39-45).

4. Claims 70-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Crawford (USP 4,776,798).

Regarding claim 70, Crawford discloses the steps of: a) providing a visual interface (e.g. Col.53-61); b) displaying at least a segment of the mechanical schematics via the interface (e.g. Figs.2-3, Col.7, lines 47-62); c) when at least one mechanical component is selected on the mechanical schematics (e.g. Col.10, lines 36-50, Col.11, lines 4-20), identifying components on the electrical schematics associated with the selected mechanical component on the mechanical schematic (e.g. Col.11, lines 21-29); and d) displaying at least the identified electrical components (e.g. Col.11, lines 21-29).

Regarding claim 71, Crawford discloses step of providing a specification (control cube 126) that associates electrical components with mechanical components controllable by the electrical components and wherein the step of identifying components on the electrical schematics includes using the specification to associate mechanical schematic components with electrical schematic components (e.g. Col.10, lines 36-50, Col.11, lines 21-29, Col.12, lines 12-24).

Art Unit: 2863

Regarding claim 72, Crawford discloses step of associating is performed prior to step (b) (e.g. Col.10, lines 36-50).

Regarding claim 73, Crawford discloses the step of associating is performed after the at least one mechanical component is selected (e.g. Col.10, lines 36-50).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roder et al. (USP 6,361,469) in view of Lancki (USP 6,097,998).

Regarding claim 2, Roder et al. fail to disclose the first and second schematics include schematic icons of first and second types, respectively, and wherein the step of identifying the components of the first type includes identifying the icons in the first section of the first schematic.

Lancki discloses the first and second schematics include schematic icons of first and second types, respectively (e.g. Fig.2, Col.7, lines 33-56), and wherein the step of identifying the components of the first type includes identifying the icons in the first section of the first schematic (e.g. Fig.2, Col.7, lines 33-56, Col.8, lines 1-25).

Art Unit: 2863

Regarding claim 16, Lancki discloses a visual interface (60)(Fig.1), wherein the step of identifying the components of the first type included in the first section of the first schematic includes displaying (display 66) at least a portion of the first schematic section via the interface and receiving a selection command via the interface (60) (e.g. Col.7, lines 33-56).

Regarding claim 17, Lancki discloses the step of rendering accessible includes displaying at least a portion of the second schematic section via the interface (e.g. Col.7, lines 33-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to inform schematic icons of first and second types as taught by Lancki in a electrical drive train of Roder et al. for purpose of providing a method and apparatus for graphically monitoring and controlling a vehicle anti-lock brake system (Lancki, Abstract).

***Allowable Subject Matter***

7. Claims 3-15, 18-34 and 74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 3, none of the prior art of record teaches or suggests the combination of a method for identifying at least a section of a first schematic associated with at least a section of a second schematic wherein each of the first and second schematics includes a set of components for configuring a system to

Art Unit: 2863

perform a process and wherein the components of the first and second schematics are first and second different types, respectively, the method comprising the steps of: a) identifying the components of the first type included in the first section of the first schematic; b) examining the second schematic to identify at least one instance of components of the second type that are associated with the identified components of the first type; and c) when at least one instance of components of the second type is identified, rendering the at least one instance accessible, wherein the first and second schematics include schematic icons of first and second types, respectively, and wherein the step of identifying the components of the first type includes identifying the icons in the first section of the first schematic, and providing a specification that associates icons of the first type with icons of the second type and wherein the step of examining the second schematic includes using the specification to identify icons of the second type that are associated with the identified icons of the first type and searching the second schematic for the identified icons of the second type. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 18, none of the prior art of record teaches or suggests the combination of a method for identifying at least a section of a first schematic associated with at least a section of a second schematic wherein each of the first and second schematics includes a set of components for configuring a system to perform a process and wherein the components of the first and second

Art Unit: 2863

schematics are first and second different types, respectively, the method comprising the steps of: a) identifying the components of the first type included in the first section of the first schematic; b) examining the second schematic to identify at least one instance of components of the second type that are associated with the identified components of the first type; and c) when at least one instance of components of the second type is identified, rendering the at least one instance accessible, and for use with a visual interface, wherein the step of identifying the components of the first type included in the first section of the first schematic includes displaying at least a portion of the first schematic section via the interface and receiving a selection command via the interface, wherein the step of rendering accessible includes displaying at least a portion of the second schematic section via the interface, and wherein the second schematic section is part of a larger segment of the second schematic and wherein the step of displaying the second section includes displaying the second section in a distinguishing fashion within the larger segment. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 33, none of the prior art of record teaches or suggests the combination of a method for identifying at least a section of a first schematic associated with at least a section of a second schematic wherein each of the first and second schematics includes a set of components for configuring a system to perform a process and wherein the components of the first and second



Art Unit: 2863

schematics are first and second different types, respectively, the method comprising the steps of: a) identifying the components of the first type included in the first section of the first schematic; b) examining the second schematic to identify at least one instance of components of the second type that are associated with the identified components of the first type; and c) when at least one instance of components of the second type is identified, rendering the at least one instance accessible, wherein, for at least a sub-set of the identified components of the first type included in the first section of the first schematic there are at least two instances of the components of the second type that are associated with the identified components of the first type and wherein the step of rendering accessible includes indicating each of the at least two instances of the components of the second type. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

Regarding claim 70, none of the prior art of record teaches or suggests the combination of a method for use with pre-existing electronically stored electrical and mechanical schematics where the electrical schematic indicates a control system to be used to control mechanical components corresponding to the mechanical schematics, wherein the method comprising the steps of: a) providing a visual interface; b) displaying at least a segment of the mechanical schematics via the interface; c) when at least one mechanical component is selected on the mechanical schematics, identifying components on the electrical

Art Unit: 2863

schematics associated with the selected mechanical component on the mechanical schematic; d) displaying at least the identified electrical components; and providing a specification that associates electrical components with mechanical components controllable by the electrical components and wherein the step of identifying components on the electrical schematics includes using the specification to associate mechanical schematic components with electrical schematic components, wherein the step of associating is performed prior to step (b), wherein the step of associating is performed after the at least one mechanical component is selected, and wherein the specification includes a set of templates where each template includes a mechanical template icon sub-set and an associated electrical template icon sub-set where the electrical icon sub-set includes icons corresponding to electrical components for controlling mechanical components corresponding to the mechanical template icon sub-set. It is these limitations as they are claimed in the combination with other limitations of claim, which have not been found, taught or suggested in the prior art of record, that make these claims allowable over the prior art.

### ***Response to Arguments***

8. Applicant's arguments filed 11/01/2004 have been fully considered but they are not persuasive.

-Applicant argues that the prior did not teach, "examining the second schematic to identify at least one instance of components of the second type that are associated with the identified components of the first type; and when at least

Art Unit: 2863

one instance of components of the second type is identified, rendering the at least one instance accessible” as cited in claim 1.

Examiner position is that Roder et al. teach examining the second schematic (electrical schematic) to identify at least one instance of components of the second type (electrical component 45) that are associated with the identified components of the first type (mechanical component 41) (e.g. Col.9, lines 5-Col.10, line 13); and when at least one instance of components of the second type (electrical component 45) is identified, rendering the at least one instance accessible (e.g. Col.10, lines 39-45).

-Applicant argues that the prior did not teach, “identifying electrical components on the electrical schematics associated with the selected mechanical component on the mechanical schematic” as cited in claim 70.

Examiner position is that Crowford teaches identifying electrical components on the electrical schematics associated with the selected mechanical component on the mechanical schematic (e.g. Col.11, lines 21-29).

### ***Conclusion***

9. Specifically Crowford, Roder et al., and Lancki have been added to second ground of rejection.

### ***Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

Art Unit: 2863


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

December 14, 2004



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800